

ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424

404-881-7000
Fax: 404-881-7777
www.alston.com

Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehahns@alston.com

October 26, 2009

BY COURIER

Michael Hom, Environmental Engineer
Clean Water Enforcement Branch
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

2009 OCT 27 A 10:48

Re: October 6, 2009, Information Request – Section 308 of the Clean Water Act - Dalton Utilities Land Application System

Dear Mr. Hom:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures include an October 20, 2009, letter with certification signed pursuant to the Request and information responsive to Paragraphs 3 and 4 of Enclosure A. The enclosed letter also includes information that Dalton Utilities has agreed to provide to EPA not specifically addressed in the Request.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v2



October 20, 2009

Mr. Michael Hom, Environmental Engineer
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Project Updates and Follow Up Information

Dear Mr. Hom,

Dalton Utilities is continuing to gather additional information on the distribution of the finished compost. To date, Dalton Utilities has contacted all the large volume distributors shown in Attachment F of our correspondence dated September 2, 2009, and approximately 51% of the individuals that received the final compost for which we have contact information as shown in Attachment G of our correspondence dated September 2, 2009.

It remains that the majority of the large volume distributors further distributed the finished compost to landscape supply companies where the compost was then sold at retail. Dalton Utilities, however, is continuing to track and evaluate records to determine the last known distribution point for each of these distributors based on their available records.

In response to the inquiry of compost usage by Hickman Angus Farms, Dalton Utilities was informed that Hickman Angus Farms was used as a transporter for an individual who used the compost as a soil amendment. Additionally, Willow Tree Farms was found to have used the compost as a soil amendment on property where different grasses are grown. None of the recipients of the compost thus far have been found to raise cattle or other wildlife for human consumption on the properties where the compost was applied.

For the individual recipients of the finished compost, the majority used the product as a soil amendment and only four were found to utilize a private well for drinking water. Samples of the private drinking water wells at these four residential locations have been collected and analyzed in the same manner as samples for the drinking water well survey.

2009 OCT 27 A 10:49

In response to EPA's request during the September 14, 2009, conference call, Dalton Utilities is providing you with the compost application rates from 2004 to current. The application rates are 532,000 pounds per acre per year (lbs/ac/yr), 505,000 lbs/ac/yr, 471,000 lbs/ac/yr, 366,000 lbs/ac/yr, and 474,000 lbs/ac/yr for 2004, 2005, 2006, 2007, and 2008, respectively. The most current application rate is listed on the manifest which accompanies every shipment of compost leaving the facility.

To date, we have received preliminary sample results for three of the four wells. All three of these wells showed a result of non-detect for PFOA and PFOS. As always, Dalton Utilities will provide the results of these samples to EPA after receiving the final analytical report.

Additionally, as stated in our correspondence dated August 5, 2009, Dalton Utilities is providing the analytical report for the modified Toxicity Characteristic Leaching Potential (TCLP) tests as well as influent or untreated wastewater sampling from each of our wastewater treatment plants to EPA. The results of these analyses are provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9G080263 which contains 484 pages and is attached as Attachment A for your review. In this report, the samples are identified as AA2, AA1B, AB5, AB13, Comp Mix, Cake, STP2 Inf, STP3 Inf, and STP4 Inf corresponding to finished compost aged approximately 18, 12, 12, and 6 months, fresh, dried biosolids cake immediately after mixing with wood waste, fresh, dried biosolids cake before the addition of wood waste, and influent to wastewater treatment plants Abutment, Riverbend, and Loopers, respectively.

Upon review, you will notice wastewater treatment plant influent results indicate that the concentrations of PFOA and PFOS are below the US EPA Public Health Advisory levels for drinking water which further validates the report from industry that they have ceased using PFOA based chemistry.

Additionally, Dalton Utilities, as part of the partnership with the Sustainability Division of the DNR, met with representatives of the University of Georgia (UGA) on September 17, 2009, to discuss the scope of the project to evaluate the current usage and potential levels going forward of perfluorinated chemicals (PFCs) in the industrial discharges into our wastewater collection system. We have finalized the scope and memorandum of agreement and are obtaining the signatures of the principal parties. After it is fully executed, we will submit a copy to you for your review.

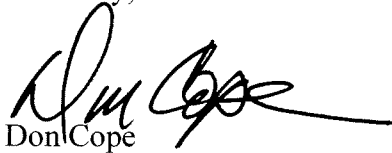
With respect to the wildlife study, as noted in our correspondence dated July 20, 2009, and conference call on October 5, 2009, Dalton Utilities coordinated with the DNR and the United States Department of Agriculture Wildlife Services (USDA) to obtain and analyze blood and tissue samples of the deer to determine if any consumption guidelines are warranted. The harvesting of selective deer was conducted on October 1, 2009, and the samples have been submitted to a contract laboratory for analyses. The protocol used for this study is attached herein as Attachment B. As always, Dalton Utilities will submit the results to EPA after receiving the final analytical report.

Once the final analytical results of the wildlife sampling event are received, Dalton Utilities will evaluate the results and make any necessary adjustments to the hunting operations. Additionally, as there are no EPA public health advisories or consumption guidelines regarding the ingestion of deer meat or any other food items in relation to PFCs, Dalton Utilities requests EPA to study these toxicological effects and advise Dalton Utilities of the findings.

As always, Dalton Utilities will update you as the projects discussed with you proceed. If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Don Cope
President & CEO

Attachments (2)

- C: Dr. Carol Couch, Georgia Environmental Protection Division (cover letter only)
- Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
- Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
- Lee A. DeHihns, Esq.

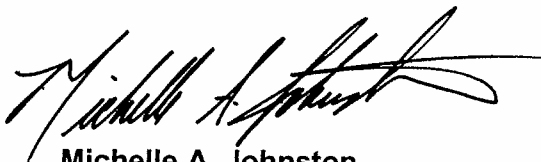
ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9G080263

Dena Haverland

**Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721**



**Michelle A. Johnston
Project Manager**

August 19, 2009

Table Of Contents

Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.

76

- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **Summary Report**
- **Chain of Custody**

Case Narrative

D9G080263

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Arrival and Receipt

The following report contains the analytical results for nine samples received at TestAmerica Denver on July 8, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 4.1°C.

The client instructed the laboratory to analyze the six soil samples using two different preparation methods for PFOA/PFOS. The first preparation method was a DI leach solution similar to an SPLP preparation. The second preparation method was the standard PFOA/PFOS preparation. Due to a LIMS limitation, the DI leach extraction analyses were logged as water samples (-001 through -006) and the standard PFOA/PFOS extraction analyses were logged as solid samples (-010 through -015).

No other anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with surrogate and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes, with the exception of the items noted in section Analytical Comments.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

Please note samples AA2, AA1B, AB5, AB13, COMP MIX, and CAKE were leached with DI water in accordance with the client's instructions. The ratio of DI water to sample volume used was 20:1. These samples and associated method blank and LCSs were filtered with a 0.45u PVDF filter.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentrations, samples AA2, AA1B, AB5, AB13, COMP MIX, CAKE, and STP4 INF had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

The internal standard recoveries for 13C4 PFBA and 13C2 PFDoA associated with QC batch 9191388 were recovered below 50% in sample STP2 INF. The internal standard recovery for 13CF PFBA associated with QC batch 9191388 was recovered below 50% in sample STP3 INF. This is an indicator that data may be biased low. Upon re-extraction and reanalysis in QC batch 9196513; internal standard recovery outliers were still present, demonstrating this anomaly is most likely due to matrix interference. The reanalysis results were turned off and the original results are reported.

The internal standard recoveries for MeFOSA associated with QC batch 9191392 were recovered below 50% in samples STP2 INF and STP3 INF. This is an indicator that data may be biased low. Upon re-extraction and reanalysis in QC batch 9196514; internal standard recovery outliers were still present, demonstrating this anomaly is most likely due to matrix interference. The reanalysis results were turned off and the original results are reported.

The internal standard recoveries for 13C4 PFOA associated with QC batch 9191212 were recovered below 50% in samples AA2, AA1B, AB5, AB13, COMP MIX, and CAKE. This is an indicator that data may be biased low. Upon re-extraction within hold time and reanalysis in QC batch 9201492, surrogate recoveries were 100% in control in samples AA2, AA1B, AB5, and AB13. Upon re-extraction within hold time and reanalysis in QC batch 9201492; surrogate recovery outliers were still present in samples COMP MIX and CAKE, demonstrating this anomaly is most likely due to matrix interference. The original results were turned off and the reanalysis results are reported.

The internal standard recoveries for MeFOSA were recovered below 50% in the method blank, low-level LCS, and mid-level LCS/LCSD associated with QC batch 9191392. Upon re-extraction and reanalysis in QC batch 9196514; the internal standard recovery outliers were still present. The reanalysis results were turned off and the original results are reported. Please note the laboratory is investigating the availability of a labeled FOSA standard to use as the internal standard in place of MeFOSA. The FOSA recoveries in the low-level LCS and mid-level LCS/LCSD are in control; therefore, the laboratory does not believe the MeFOSA recoveries indicate a low bias.

Please note the TCLP-like analyses in QC batches 9194436 and 9203010 are reporting a leach blank and a method blank. Due to a limitation in the laboratory's system, the leach blanks and

method blanks are reported as method blanks. The leach blank for batch 9194436 is work order LGE3L1AA and the leach blank for batch 9203010 is work order LGT6P1AA.

The method required MS/MSD analyses could not be performed for QC batches 9191388 and 9191392, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

The MS/MSD analyses performed on sample AB5 associated with QC batch 9194436 exhibited spike compound recoveries outside the QC control limits for PFOA, due to the high dilution. The acceptable low-level LCS and mid-level LCS analyses data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The MS/MSD analyses performed on sample AB13 associated with QC batch 9201492 exhibited spike compound recoveries outside the QC control limits for PFOA and PFOS, due to the high dilution. The acceptable low-level LCS and mid-level LCS analyses data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The MS/MSD analyses performed on sample AB13 associated with QC batch 9203010 exhibited spike compound recoveries outside the QC control limits for PFOA and PFOS, due to the high dilution. The acceptable low-level LCS and mid-level LCS analyses data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G080263

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
AA2 07/06/09 12:27 001				
Perfluorooctanesulfonate	0.41	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	57	2.2	ug/L	DEN -LC-0012
AA1B 07/06/09 12:32 002				
Perfluorooctanesulfonate	0.079	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	11	1.1	ug/L	DEN -LC-0012
AB5 07/06/09 12:50 003				
Perfluorooctanesulfonate	0.081	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	39	2.2	ug/L	DEN -LC-0012
AB13 07/06/09 12:58 004				
Perfluorooctanesulfonate	0.26	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	16	1.1	ug/L	DEN -LC-0012
COMP MIX 07/06/09 13:00 005				
Perfluorooctanesulfonate	0.0096	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.29	0.11	ug/L	DEN -LC-0012
CAKE 07/06/09 13:05 006				
Perfluorooctanesulfonate	0.015	0.0030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.44	0.11	ug/L	DEN -LC-0012
STP2 INF 07/06/09 00:05 007				
Perfluoroheptanoic acid (PFHpA)	0.064	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.23	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.17	0.020	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.15	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.054	0.030	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.047	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.13	0.020	ug/L	DEN -LC-0012
Perfluorooctane sulfonamide (F)	0.0070 J	0.050	ug/L	DEN -LC-0012

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D9G080263

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
STP3 INF 07/06/09 00:05 008				
Perfluoropentanoic acid (PFPA)	0.26	0.030	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.078	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.20	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.088	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.71	0.020	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.13	0.020	ug/L	DEN -LC-0012
STP4 INF 07/06/09 00:07 009				
Perfluorobutane sulfonate (PFB)	2.6	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.13	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.74	0.30	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.32	0.20	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.55	0.20	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.19 J	0.20	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.25	0.20	ug/L	DEN -LC-0012
Perfluorooctane sulfonamide (F)	0.0070 J	0.050	ug/L	DEN -LC-0012
AA2 07/06/09 12:27 010				
PFOS	350	240	ug/kg	DEN -LC-0012
PFOA	2000	370	ug/kg	DEN -LC-0012
Percent Moisture	48	0.10	%	ASTM D 2216-90
AA1B 07/06/09 12:32 011				
PFOS	180	8.2	ug/kg	DEN -LC-0012
PFOA	1200	640	ug/kg	DEN -LC-0012
Percent Moisture	69	0.10	%	ASTM D 2216-90
AB5 07/06/09 12:50 012				
PFOS	170 J	250	ug/kg	DEN -LC-0012
PFOA	2000	380	ug/kg	DEN -LC-0012
Percent Moisture	49	0.10	%	ASTM D 2216-90
AB13 07/06/09 12:58 013				
PFOS	560	300	ug/kg	DEN -LC-0012
PFOA	1100	470	ug/kg	DEN -LC-0012
Percent Moisture	59	0.10	%	ASTM D 2216-90

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D9G080263

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
COMP MIX 07/06/09 13:00 014				
PFOS	160	12	ug/kg	DEN -LC-0012
PFOA	72	18	ug/kg	DEN -LC-0012
Percent Moisture	78	0.10	%	ASTM D 2216-90
CAKE 07/06/09 13:05 015				
PFOS	210	11	ug/kg	DEN -LC-0012
PFOA	88	18	ug/kg	DEN -LC-0012
Percent Moisture	78	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9G080263

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec
LC/MS/MS, PFOA	DEN -LC-0012	
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9G080263

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Reva M. Golden	010906
DEN -LC-0012	Jacqueline Bonnett	003601

References:

ASTM Annual Book Of ASTM Standards.

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9G080263

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LF697	001	AA2	07/06/09	12:27
LF7AC	002	AA1B	07/06/09	12:32
LF7AG	003	AB5	07/06/09	12:50
LF7AJ	004	AB13	07/06/09	12:58
LF7AK	005	COMP MIX	07/06/09	13:00
LF7AM	006	CAKE	07/06/09	13:05
LF7AQ	007	STP2 INF	07/06/09	00:05
LF7A0	008	STP3 INF	07/06/09	00:05
LF7A1	009	STP4 INF	07/06/09	00:07
LF797	010	AA2	07/06/09	12:27
LF8AA	011	AA1B	07/06/09	12:32
LF8AE	012	AB5	07/06/09	12:50
LF8AL	013	AB13	07/06/09	12:58
LF8AP	014	COMP MIX	07/06/09	13:00
LF8AQ	015	CAKE	07/06/09	13:05

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: AA2

HPLC

Lot-Sample #....: D9G080263-001 Work Order #....: LF6971AA Matrix.....: WATER
Date Sampled....: 07/06/09 12:27 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
Prep Batch #....: 9194436 Analysis Time...: 19:18
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.41	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOS	57	(50 - 200)

Dalton Utilities

Client Sample ID: AA2

HPLC

Lot-Sample #....: D9G080263-001 Work Order #....: LF6972AA Matrix.....: WATER
Date Sampled....: 07/06/09 12:27 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/21/09
Prep Batch #....: 9194436 Analysis Time...: 13:28
Dilution Factor: 200

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	57	2.2	ug/L	0.22

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	87	(50 - 200)

Dalton Utilities

Client Sample ID: AA1B

HPLC

Lot-Sample #....: D9G080263-002 Work Order #....: LF7AC1AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:32 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
Prep Batch #....: 9194436 Analysis Time...: 19:25
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.079	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOS	59	(50 - 200)

Dalton Utilities

Client Sample ID: AA1B

HPLC

Lot-Sample #....: D9G080263-002 Work Order #....: LF7AC2AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:32 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/20/09
Prep Batch #....: 9194436 Analysis Time...: 13:47
Dilution Factor: 100
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	11	1.1	ug/L	0.11

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	94	(50 - 200)

Dalton Utilities

Client Sample ID: AB5

HPLC

Lot-Sample #....: D9G080263-003 Work Order #....: LF7AG1AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:50 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
Prep Batch #....: 9194436 Analysis Time...: 19:32
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.081	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOS	66	(50 - 200)

Dalton Utilities

Client Sample ID: AB5

HPLC

Lot-Sample #....: D9G080263-003 Work Order #....: LF7AG2AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:50 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/21/09
Prep Batch #....: 9194436 Analysis Time...: 13:35
Dilution Factor: 200
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	39	2.2	ug/L	0.22

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	88	(50 - 200)

Dalton Utilities

Client Sample ID: AB13

HPLC

Lot-Sample #....: D9G080263-004 Work Order #....: LF7AJ1AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:58 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
Prep Batch #....: 9194436 Analysis Time...: 19:54
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.26	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOS	62	(50 - 200)

Dalton Utilities

Client Sample ID: AB13

HPLC

Lot-Sample #....: D9G080263-004 Work Order #....: LF7AJ2AC Matrix.....: WATER
Date Sampled....: 07/06/09 12:58 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/20/09
Prep Batch #....: 9194436 Analysis Time...: 14:51
Dilution Factor: 100

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	16	1.1	ug/L	0.11

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	91	(50 - 200)

Dalton Utilities

Client Sample ID: COMP MIX

HPLC

Lot-Sample #....: D9G080263-005 Work Order #....: LF7AK1AC Matrix.....: WATER
Date Sampled....: 07/06/09 13:00 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
Prep Batch #....: 9194436 Analysis Time...: 20:08
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.0096	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOS	69	(50 - 200)

Dalton Utilities

Client Sample ID: COMP MIX

HPLC

Lot-Sample #....: D9G080263-005 Work Order #....: LF7AK2AC Matrix.....: WATER
Date Sampled...: 07/06/09 13:00 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/20/09
Prep Batch #....: 9194436 Analysis Time...: 14:59
Dilution Factor: 10
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	0.29	0.11	ug/L	0.011

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	95	(50 - 200)

Dalton Utilities

Client Sample ID: CAKE

HPLC

Lot-Sample #....: D9G080263-006 Work Order #....: LF7AM1AC Matrix.....: WATER
 Date Sampled....: 07/06/09 13:05 Date Received...: 07/08/09
 Prep Date.....: 07/13/09 Analysis Date...: 07/18/09
 Prep Batch #....: 9194436 Analysis Time...: 20:15
 Dilution Factor: 1
 Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanesulfonate	0.015	0.0030	ug/L	0.00050

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOS	72	(50 - 200)

Dalton Utilities

Client Sample ID: CAKE

HPLC

Lot-Sample #....: D9G080263-006 Work Order #....: LF7AM2AC Matrix.....: WATER
Date Sampled....: 07/06/09 13:05 Date Received...: 07/08/09
Prep Date.....: 07/13/09 Analysis Date...: 07/20/09
Prep Batch #....: 9194436 Analysis Time...: 15:13
Dilution Factor: 10
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	0.44	0.11	ug/L	0.011

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	102	(50 - 200)

Dalton Utilities

Client Sample ID: STP2 INF

HPLC

Lot-Sample #....: D9G080263-007 **Work Order #....:** LF7AQ1AC **Matrix.....:** WATER
Date Sampled....: 07/06/09 00:05 **Date Received...:** 07/08/09
Prep Date.....: 07/10/09 **Analysis Date...:** 07/15/09
Prep Batch #....: 9191388 **Analysis Time...:** 20:00
Dilution Factor: 1
Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluoroheptanoic acid (PFHpA)	0.064	0.020	ug/L	0.0054
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.0065
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0026
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0025
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.0040
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.0072
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.0087
Perfluorobutane sulfonate (PFBS)	0.23	0.020	ug/L	0.0045
Perfluorodecane sulfonate (PFDS)	ND	0.020	ug/L	0.0029
Perfluorooctanesulfonate	0.17	0.020	ug/L	0.0068
Perfluorooctanoic Acid	0.15	0.020	ug/L	0.0055
Perfluoropentanoic acid (PFPA)	0.054	0.030	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0084
Perfluorobutanoic acid (PFBA)	0.047	0.020	ug/L	0.0062
Perfluorohexanoic acid (PFHxA)	0.13	0.020	ug/L	0.0030

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	85	(50 - 200)
13C4 PFOS	83	(50 - 200)
13C4 PFBA	22 *	(50 - 200)
13C2 PFHxA	75	(50 - 200)
18O2 PFHxS	87	(50 - 200)
13C5 PFNA	96	(50 - 200)
13C2 PFDA	99	(50 - 200)
13C2 PFUnA	85	(50 - 200)
13C2 PFDoA	37 *	(50 - 200)

NOTE (S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: STP2 INF

HPLC

Lot-Sample #....: D9G080263-007 Work Order #....: LF7AQ1AD Matrix.....: WATER
Date Sampled....: 07/06/09 00:05 Date Received...: 07/08/09
Prep Date.....: 07/10/09 Analysis Date...: 07/19/09
Prep Batch #....: 9191392 Analysis Time...: 19:53
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	0.0070 J	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	22 *	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: STP3 INF

HPLC

Lot-Sample #....: D9G080263-008 **Work Order #....:** LF7A01AC **Matrix.....:** WATER
Date Sampled....: 07/06/09 00:05 **Date Received...:** 07/08/09
Prep Date.....: 07/10/09 **Analysis Date...:** 07/15/09
Prep Batch #....: 9191388 **Analysis Time...:** 20:16
Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluoropentanoic acid (PFPA)	0.26	0.030	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0084
Perfluorobutanoic acid (PFBA)	0.078	0.020	ug/L	0.0062
Perfluorohexanoic acid (PFHxA)	0.20	0.020	ug/L	0.0030
Perfluoroheptanoic acid (PFHpA)	0.088	0.020	ug/L	0.0054
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.0065
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0026
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0025
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.0040
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.0072
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.0087
Perfluorobutane sulfonate (PFBS)	0.71	0.020	ug/L	0.0045
Perfluorodecane sulfonate (PFDS)	ND	0.020	ug/L	0.0029
Perfluorooctanesulfonate	ND	0.020	ug/L	0.0068
Perfluorooctanoic Acid	0.13	0.020	ug/L	0.0055

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	80	(50 - 200)
13C4 PFOS	89	(50 - 200)
13C4 PFBA	32 *	(50 - 200)
13C2 PFHxA	76	(50 - 200)
18O2 PFHxS	95	(50 - 200)
13C5 PFNA	99	(50 - 200)
13C2 PFDA	103	(50 - 200)
13C2 PFUnA	89	(50 - 200)
13C2 PFDoA	57	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: STP3 INF

HPLC

Lot-Sample #....: D9G080263-008 Work Order #....: LF7A01AD Matrix.....: WATER
 Date Sampled....: 07/06/09 00:05 Date Received...: 07/08/09
 Prep Date.....: 07/10/09 Analysis Date...: 07/19/09
 Prep Batch #....: 9191392 Analysis Time...: 21:13
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	43 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: STP4 INF

HPLC

Lot-Sample #....: D9G080263-009 Work Order #....: LF7A11AC Matrix.....: WATER
 Date Sampled....: 07/06/09 00:07 Date Received...: 07/08/09
 Prep Date.....: 07/10/09 Analysis Date...: 07/15/09
 Prep Batch #....: 9191388 Analysis Time...: 20:49
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorohexane sulfonate (PFH xS)	ND	0.030	ug/L	0.0084
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.0065
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0026
Perfluoroundecanoic acid (PFUn A)	ND	0.020	ug/L	0.0025
Perfluorododecanoic acid (PFDo A)	ND	0.020	ug/L	0.0040
Perfluorotridecanoic acid (PFT riA)	ND	0.020	ug/L	0.0072
Perfluorotetradecanoic acid (P FTeA)	ND	0.020	ug/L	0.0087
Perfluorobutane sulfonate (PFB S)	2.6	0.020	ug/L	0.0045
Perfluorodecane sulfonate (PFD S)	ND	0.020	ug/L	0.0029
Perfluorooctanesulfonate	0.13	0.020	ug/L	0.0068

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOS	86	(50 - 200)
18O2 PFHxS	97	(50 - 200)
13C5 PFNA	92	(50 - 200)
13C2 PFDA	96	(50 - 200)
13C2 PFUnA	91	(50 - 200)
13C2 PFDoA	58	(50 - 200)

Dalton Utilities

Client Sample ID: STP4 INF

HPLC

Lot-Sample #....: D9G080263-009 Work Order #....: LF7A11AD Matrix.....: WATER
 Date Sampled....: 07/06/09 00:07 Date Received...: 07/08/09
 Prep Date.....: 07/10/09 Analysis Date...: 07/19/09
 Prep Batch #....: 9191392 Analysis Time...: 21:30
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	0.0070 J	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	77	(50 - 200)

NOTE(S) :

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: STP4 INF

HPLC

Lot-Sample #....: D9G080263-009 Work Order #....: LF7A13AC Matrix.....: WATER
 Date Sampled....: 07/06/09 00:07 Date Received...: 07/08/09
 Prep Date.....: 07/10/09 Analysis Date...: 07/15/09
 Prep Batch #....: 9191388 Analysis Time...: 20:49
 Dilution Factor: 10
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluoropentanoic acid (PFPA)	0.74	0.30	ug/L	0.082
Perfluorobutanoic acid (PFBA)	0.32	0.20	ug/L	0.062
Perfluorohexanoic acid (PFHxA)	0.55	0.20	ug/L	0.030
Perfluoroheptanoic acid (PFHpA)	0.19 J	0.20	ug/L	0.054
)				
Perfluorooctanoic Acid	0.25	0.20	ug/L	0.055

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	105	(50 - 200)
13C4 PFBA	94	(50 - 200)
13C2 PFHxA	106	(50 - 200)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: AA2

HPLC

Lot-Sample #....: D9G080263-010 Work Order #....: LF7972AC Matrix.....: SOLID
 Date Sampled....: 07/06/09 12:27 Date Received...: 07/08/09
 Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
 Prep Batch #....: 9201492 Analysis Time...: 13:33
 Dilution Factor: 50
 % Moisture.....: 48 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	350	240	ug/kg	57
PFOA	2000	370	ug/kg	48

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	99	(50 - 200)
13C4 PFOS	106	(50 - 200)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: AA1B

HPLC

Lot-Sample #....: D9G080263-011 Work Order #....: LF8AA3AC Matrix.....: SOLID
Date Sampled....: 07/06/09 12:32 Date Received...: 07/08/09
Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
Prep Batch #....: 9201492 Analysis Time...: 06:06
Dilution Factor: 1
% Moisture.....: 69 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	180	8.2	ug/kg	2.0
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
13C4 PFOS	50	(50 - 200)		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: AA1B

HPLC

Lot-Sample #....: D9G080263-011 Work Order #....: LF8AA4AC Matrix.....: SOLID
Date Sampled....: 07/06/09 12:32 Date Received...: 07/08/09
Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
Prep Batch #....: 9201492 Analysis Time...: 13:49
Dilution Factor: 50
% Moisture.....: 69 Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
PFOA	1200	640	ug/kg	82

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	92	(50 - 200)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: AB5

HPLC

Lot-Sample #....: D9G080263-012 Work Order #....: LF8AE3AC Matrix.....: SOLID
Date Sampled....: 07/06/09 12:50 Date Received...: 07/08/09
Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
Prep Batch #....: 9201492 Analysis Time...: 13:56
Dilution Factor: 50
% Moisture.....: 49 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	170 J	250	ug/kg	59
PFOA	2000	380	ug/kg	49

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	90	(50 - 200)
13C4 PFOS	102	(50 - 200)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.
J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: AB13

HPLC

Lot-Sample #....: D9G080263-013 Work Order #....: LF8AL2AC Matrix.....: SOLID
 Date Sampled....: 07/06/09 12:58 Date Received...: 07/08/09
 Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
 Prep Batch #....: 9201492 Analysis Time...: 14:04
 Dilution Factor: 50
 % Moisture.....: 59 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	560	300	ug/kg	73
PFOA	1100	470	ug/kg	61

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	91	(50 - 200)
13C4 PFOS	98	(50 - 200)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: COMP MIX

HPLC

Lot-Sample #....: D9G080263-014 Work Order #....: LF8AP2AC Matrix.....: SOLID
 Date Sampled....: 07/06/09 13:00 Date Received...: 07/08/09
 Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
 Prep Batch #....: 9201492 Analysis Time...: 06:42
 Dilution Factor: 1
 % Moisture.....: 78 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	160	12	ug/kg	2.8
PFOA	72	18	ug/kg	2.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	44 *	(50 - 200)
13C4 PFOS	59	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.
 Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: CAKE

HPLC

Lot-Sample #....: D9G080263-015 Work Order #....: LF8AQ2AC Matrix.....: SOLID
 Date Sampled....: 07/06/09 13:05 Date Received...: 07/08/09
 Prep Date.....: 07/20/09 Analysis Date...: 08/02/09
 Prep Batch #....: 9201492 Analysis Time...: 06:49
 Dilution Factor: 1
 % Moisture.....: 78 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOS	210	11	ug/kg	2.7
PFOA	88	18	ug/kg	2.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	43 *	(50 - 200)
13C4 PFOS	51	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: AA2

General Chemistry

Lot-Sample #....: D9G080263-010 Work Order #....: LF797 Matrix.....: SOLID
Date Sampled....: 07/06/09 12:27 Date Received...: 07/08/09
% Moisture.....: 48

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	48	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time..: 13:00	MDL.....: 0.0	

Dalton Utilities

Client Sample ID: AA1B

General Chemistry

Lot-Sample #....: D9G080263-011 Work Order #....: LF8AA Matrix.....: SOLID
Date Sampled....: 07/06/09 12:32 Date Received...: 07/08/09
% Moisture.....: 69

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	69	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

Dalton Utilities

Client Sample ID: AB5

General Chemistry

Lot-Sample #....: D9G080263-012 Work Order #....: LF8AE Matrix.....: SOLID
Date Sampled....: 07/06/09 12:50 Date Received...: 07/08/09
% Moisture.....: 49

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	49	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

Dalton Utilities

Client Sample ID: AB13

General Chemistry

Lot-Sample #....: D9G080263-013 Work Order #....: LF8AL Matrix.....: SOLID
Date Sampled....: 07/06/09 12:58 Date Received...: 07/08/09
% Moisture.....: 59

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	59	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

Dalton Utilities

Client Sample ID: COMP MIX

General Chemistry

Lot-Sample #....: D9G080263-014 Work Order #....: LF8AP Matrix.....: SOLID
Date Sampled....: 07/06/09 13:00 Date Received...: 07/08/09
% Moisture.....: 78

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	78	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

Dalton Utilities

Client Sample ID: CAKE

General Chemistry

Lot-Sample #....: D9G080263-015 Work Order #....: LF8AQ Matrix.....: SOLID
Date Sampled....: 07/06/09 13:05 Date Received...: 07/08/09
% Moisture.....: 78

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	78	0.10	%	ASTM D 2216-90	07/09/09	9190239
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

QC DATA ASSOCIATION SUMMARY

D9G080263

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	DEN -LC-0012		9194436	9194282
002	WATER	DEN -LC-0012		9194436	9194282
003	WATER	DEN -LC-0012		9194436	9194282
004	WATER	DEN -LC-0012		9194436	9194282
005	WATER	DEN -LC-0012		9194436	9194282
006	WATER	DEN -LC-0012		9194436	9194282
007	WATER	DEN -LC-0012		9191388	
	WATER	DEN -LC-0012		9191392	
008	WATER	DEN -LC-0012		9191388	
	WATER	DEN -LC-0012		9191392	
009	WATER	DEN -LC-0012		9191388	
	WATER	DEN -LC-0012		9191392	
010	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162
011	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162
012	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162
013	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162
014	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162
015	SOLID	DEN -LC-0012		9201492	9202002
	SOLID	ASTM D 2216-90		9190239	9191162

Dalton Utilities

Wildlife Sampling Protocol

October 2009

Dalton Utilities Wildlife Sampling Protocol

Table of Contents

Executive Summary	3
Dalton Utilities Wildlife Sampling Protocol	4
1. Identification of Wildlife and Methodologies.....	4
2. Identification of Sample Matrices.....	4
3. Permitting.....	4
4. Sample Collection.....	4
5. Sample Identification, Labeling, Chain of Custody, and Recordkeeping.....	5
6. Quality Control	6
7. Shipment of Samples	6
8. Sample Analyses	6
9. Reporting.....	6
Attachment A.....	7
Attachment B.....	9
Attachment C.....	10

Dalton Utilities Wildlife Sampling Protocol

Executive Summary

Dalton Utilities, located in Dalton, Georgia, operates water treatment, wastewater treatment, natural gas, electric, and telecommunication systems that serve residents in the City of Dalton in addition to residents in Whitfield, Murray, Gordon, and Catoosa Counties.

Dalton Utilities wastewater operations is comprised of approximately 295 miles of pipe, 5,544 manholes, and 35 lift stations in the wastewater collection system, five wastewater treatment facilities, and 9,800 Land Application System (LAS). The largest three wastewater treatment plants (WWTP), Abutment WWTP, Riverbend WWTP, and Loopers WWTP are part of Dalton Utilities Land Application System (LAS) which is a non-discharging system.

These three WWTPs take wastewater from local industries and the residents of the City of Dalton and parts of Whitfield County and process the wastewater utilizing biological treatment. The treated wastewater or effluent is then transported to the canal or reservoir located at the LAS. The effluent flows through the canal system to the pump stations where the effluent is chlorinated and then pumped to various sprayfields. The effluent is distributed via underground piping and sprayed using impact sprinklers onto the land where the effluent infiltrates the soil surface and subsurface providing additional treatment.

In May 2009, Dalton Utilities collected samples at various locations on the LAS. In response to these sample results, Dalton Utilities decided to sample the wildlife on the LAS to identify the levels of Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) present in the wildlife population.

Dalton Utilities Wildlife Sampling Protocol

Dalton Utilities Wildlife Sampling Protocol

1. Identification of Wildlife and Methodologies

Dalton Utilities routinely conducts controlled quota hunts as part of the on-going management of the Land Application System. These hunts are conducted in partnership with the Georgia Department of Natural Resources (DNR) and are intended to manage the population of deer and turkey on the property. As wild turkeys are typically hunted for trophies and not human consumption, this protocol is designed to focus on the deer population.

To select the animals for sampling, Dalton Utilities enlisted the assistance of the United States Department of Agriculture, Animal and Plant Health Inspection Services, Wildlife Services (USDA/APHIS WS) and Georgia Department of Natural Resources (DNR). Also, Dalton Utilities contacted the State of Alabama's Veterinarian as it was known that similar sampling and analyses were conducted in Decatur, Alabama.

2. Identification of Sample Matrices

Similar to the sampling conducted in Decatur, Alabama, Dalton Utilities, through consultation with USDA/APHIS WS, DNR, and University of Georgia Warnell School of Forestry & Natural Resources, identified the blood (serum), liver, and skeletal muscle to be the most appropriate samples to be analyzed.

As PFOA and PFOS have established public health advisories for drinking water, only these two chemicals were chosen for analyses as part of this study.

3. Permitting

In accordance with the Official Code of Georgia Annotated (OCGA) Section 27-2-12, a Scientific Collecting Permit was obtained by Dalton Utilities for the duration of this project. The Scientific Collecting Permit is attached herein as Attachment A.

4. Sample Collection

Dalton Utilities requests USDA/APHIS WS to take approximately 10 deer to ensure a selection of different aged animals. From these, two deer will be selected for sampling based on the approximate ages of the animals. The oldest and youngest of the harvested animals will be selected for sampling as part of this project. No additional consideration will be given to the sex of the animals.

Dalton Utilities Wildlife Sampling Protocol

One to eight of the remaining animals may be sampled as time and resources permit. Samples from these additional animals will remain in storage for up to six months or until it is determined if further testing is necessary.

Blood will be drawn via heart puncture immediately after death. Approximately 50 milliliters (ml) of blood will be collected utilizing a Monoject® 60 ml syringe, Ait-Tite® 3 inch, 16 gauge needle, and BD plain red-top serum vacutainer®. Blood tubes will be held in refrigeration and centrifuged 12 – 18 hours after collection. Approximately 5-10 ml of serum will be collected via Fisherbrand® borosilicate glass pipets and 1 ml aliquots will be placed in Corning® 2.0 ml cryo vials.

USDA/APHIS WS will collect skeletal muscle samples and entire liver samples for each deer selected for testing. The body cavities of each deer will be opened utilizing stainless steel and plain steel instruments. A separate set of stainless steel instruments will be used to collect both the muscle tissue and liver samples. All instruments will be cleaned with soap and water followed by a 95% ethanol rinse between each animal to prevent cross-contamination.

After collection, all samples will be placed into the appropriately labeled Teflon free containers, vials for serum and Ziploc bags for the liver and tissues. These will then be placed in a cooler containing wet ice for transport back to the USDA/APHIS WS office. Immediately upon arrival, the samples will be placed in a -20°C freezer until solid. Samples will then be shipped in an insulated container with dry ice via overnight courier to the contract laboratory.

Upon the harvesting of each animal, an individual number indicating the order of the animals harvested will be assigned to the animal and general information such as sex, weight, approximate age, and general location where animal was obtained recorded on a specified form. An example of this form is attached herein as Attachment B.

5. Sample Identification, Labeling, Chain of Custody, and Recordkeeping

For simplicity, the sample containers will be labeled appropriately as to the numeric identifier, sex, and approximate age of the specific animal and the type of sample (i.e. serum, liver, tissue).

The sample container labels will correspond directly with the Chain of Custody. The individual collecting the sample will fill out the Chain of Custody appropriately and relinquish the samples to the contract laboratory via the signature on the Chain of Custody. An example Chain of Custody is attached herein as Attachment C.

All records pertaining to this project will be collected and maintained by Dalton Utilities.

Dalton Utilities Wildlife Sampling Protocol

6. Quality Control

With the limited scope of this project, no field duplicates will be collected and analyzed. Quality control of the laboratory analyses will be conducted in accordance with the contract laboratory's QC program and procedures and will include laboratory duplicates and matrix spikes.

7. Shipment of Samples

The samples will be placed in the appropriately labeled containers with the completed Chain of Custody and shipped in an insulated container with dry ice via an overnight courier to the contact laboratory for analyses.

8. Sample Analyses

As PFOA and PFOS have established public health advisories for drinking water, only these two chemicals were chosen for analyses as part of this study. The concentrations of these two chemical will be determined utilizing the contract laboratory's method for analyses. The method will be provided to Dalton Utilities by the contract laboratory in the subsequent analytical report.

9. Reporting

The analytical report for this project will be provided to Dalton Utilities upon completion and verification of the analyses by the contract laboratory. A full report including all analytical results will be provided to EPA once the final analytical results are received.

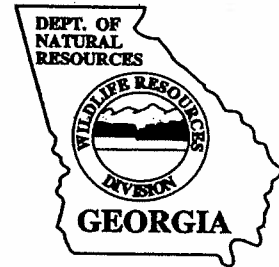
10. References

- Dobson, K, 2009. U.S.D.A. F.S.I.S. Sample Collection Protocol Decatur Biosludge Investigation. Unpublished.
- Giesy, JP and Kannan, K. 2001. Global distribution of perfluorooctane sulfonate in wildlife. *Environ Sci Technol* 35(7): 1339-42.
- Giesy JP, KK. 2001. Accumulation of Perfluorooctanesulfonate and related Fluorochemicals in Mink and River Otters. U.S. EPA Administrative Record AR226-1030a157.
- Kannan, K., Newsted, J., Halbrook, RS and Giesy, JP. 2002. Perfluorooctanesulfonate and related fluorinated hydrocarbons in mink and river otters from the United States. *Environ Sci Technol* 36(12): 2566-71.

SCIENTIFIC COLLECTING PERMIT
(29-WTN-09-220)

FEE: \$50

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
CHRIS CLARK, Commissioner



Permittee: DALTON UTILITIES, DENA HAVERLAND
1200 V.D. PARROTT JR. PARKWAY
DALTON, GA 30722
CN: 23178

Species: WHITETAILED DEER
Numbers(if applicable):
Expiration date: March 31, 2010

Above named is hereby permitted, in accordance with O.C.GA 27-2-12 and the regulations of the Georgia Department of Natural resources subject to the terms, exceptions, and restrictions expressed on the attached "General Conditions" and subject to any other applicable State or federal regulations, to take for scientific and educational purposes only in the State of Georgia, wildlife which is listed above.

This permit is conditional and confers NO privileges whatsoever to take, possess, exchange, or transport migratory birds or their parts, nests, or eggs unless the permittee has in his possession, while exercising the privilege granted herein a valid subsisting permit to take Migratory Birds and their parts, nests, or eggs for scientific purposes in the State of Georgia issued to him by the U.S. Fish and Wildlife Service, and unless or until that condition is fulfilled, the taking of Migratory Birds, their parts, nests, or eggs is a violation of the regulations as set forth by the State.

Unless otherwise specified, permittee must submit a complete report of all specimens collected under the authority of this permit upon expiration date of permit. This permit (copy and letter of authorization for subpermittees) must be in possession while collecting.

CONDITIONS:

Location: Dalton Utilities Land Application System located in Whitfield and Murray Counties.

1. Licensee is authorized to collect no more than 10 whitetailed deer for environmental sampling purposes. Collection of whitetailed deer shall be by USDA APHIS Wildlife Services personnel using firearms.
2. Permittee is reminded of the importance of items 7 and 14 and all applicable conditions on reverse of permit.

Dena Haverland
Signature of Permittee

Date Issued: 01-OCT-09

SCIENTIFIC COLLECTING PERMIT GENERAL PROVISIONS

1. A Federal Permit is also required for collection of migratory birds or their parts, nests, or eggs.
Attachment A
2. Region or District Law Enforcement office, along with Game Management, Fisheries Management, or the U.S. Forest Service, if applicable, in each area of collection must be notified at least three (3) days in advance of the date and place of specimens are to be collected, the species to be collected, methods of collection, and permit number.
3. Collectors should be as judicious and humane as possible in collecting and capture.
4. The Department of Natural Resources reserves the right to limit the kind and numbers of specimens collected in order to ensure the conservation of the natural resources of this State. The taking of wildlife at anytime by means other than those conditions set forth in this permit is prohibited.
5. This permit does not authorize the taking of any listed (endangered, threatened, rare, or unusual) species unless specifically provided.
6. This permit does not authorize collections on State or Federal Wildlife Refuges, management areas, other sanctuaries, or parks unless specifically provided. If authorized, specific written permission must be obtained from the park manager, area manager, or supervisor prior to any collection activities.
7. Permits are not transferable. However, assistants, employees, or field workers may assist with collections. Designated representatives of the master permittee must possess a copy of the permit and a letter of authorization from the master permittee.
8. Permittees must submit an annual report of specimens collected upon expiration date of said permit. Forms for this reporting are available from the Department of Natural Resources Special Permit Unit. **NO PERMITS SHALL BE RENEWED UNTIL SUCH REPORT IS RECEIVED.**
9. Collections shall be available for inspection at any and all times to duly authorized inspectors or agents of the Department of Natural Resources.
10. Any permit may be revoked at any time for violation of the terms, exceptions, restrictions, or conditions of said permit.
11. The Department may request, when practical, duplicates of any collections taken under authority of this permit for future educational purposes.
12. All permits expire March 31.
13. This permit does not authorize the exchange of fish and wildlife, their parts, nests, or eggs, with persons who do not hold an appropriate permit.
14. Permit (copy and letter of authorization for subpermittees) must be in possession while collecting.
15. Encounters with animals listed on the Georgia DNR Nongame Conservation Section's Tracking List of Special Concern Animals must be reported within one (1) year to: GA DNR Nongame Conservation Section, (770) 918-6411 or (706) 557-3032. Electronic submission forms may be found at <http://www.georgiawildlife.com/> > Nongame Animals & Plants > Georgia Rare Species Information.

Georgia Department of Natural Resources
Wildlife Resources Division
Special Permit Unit
2065 U.S. Highway 278, S.E.
Social Circle, GA 30025-4743
770-761-3044

DATE(S)

COLLECTOR_

TYPE HUNT

[illegible]

Example

MPI RESEARCH

MPI Research Contact: Daniel Wright

Attachment C

Sample Submittal

Please fax this form before sending samples.

Please send samples to shipping and receiving:
3048 Research Drive, State College, PA 16801
T: (814) 272-1039 • F: (814) 272-1019

Turnaround time (TAT) requirements:

Results Due Date: 30 days

Preliminary Results Format: Verbal ☒ Email ☐ Fax ☐

Report Due Date: 30 days

Send Report To:

Company: Dalton Utilities
1200 VD Parrott JR Parkway, PO Box 869
Address: _____

City, State, ZIP: Dalton, GA 30722-0869

Attention: Dena Haverland

Phone #: 706-529-1010

Fax #: 706-529-1271

Email: dhaverland@dutil.com

Study/Job #: _____

Signature/Date: _____

Printed Name: _____

Storage Conditions

Room temperature
Refrigerator
Freezer
Ultra Low freezer
Desiccated
Lighting required

Stability (°C/%RH): _____

Stability time period: _____

Safety Information

Special handling: _____

MSDS attached ☐

Controlled substance: _____

HAZARDS: _____

Please fill in the diamond HMIS/NFPA
(0 4) if appropriate



	Client ID# Description	Lot/ Control #	Amt. Sent/ Weight	# of Bottles	Matrix	Date & Time	Tests Requested
1	#1-2 yr female - serum		10 ml	1	deer	10-1-09 2:25PM	PFOA/PFOS
2							
3							
4							
5							
6							
7							
8							
9							
10							

PO #: _____

Notes:

Relinquished by	Date	Time	Received by	Date	Time
<u>Dena Haverland</u>	<u>10/1/09</u>	<u>2:45pm</u>			

V0002836 2